Electronic TUBES

12K8

Description and Rating

TRIODE-HEXODE CONVERTER

GENERAL DESCRIPTION

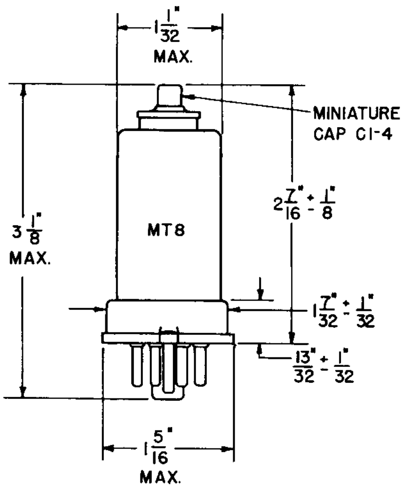
Principal Application: The 12K8 is a metal type triode-hexode converter designed to perform simultaneously the functions of mixer and oscillator in superheterodyne circuits, especially those of the all-wave type.

Cathode	Coated Unipotential
Heater Voltage (A-C or D-C)	12.6 Volts
Heater Current	0.15 Ampere
Envelope	Metal Shell, MT-8
Base	B8-21 Small Wafer Octal 8-Pin
Base Material	Phenolic
Mounting Position	Any

Direct Interelectrode Capacitances:#

Hexode Grid Number 3 to Hexode Plate	0.03	μμf
Hexode Grid Number 3 to Triode Plate	0.02	μμf
Hexode Grid Number 3 to Triode Grid and Hexode Grid Number 1	0.2	μμf
Triode Grid and Hexode Grid Number 1 to Triode Plate	1.1	μμf
Triode Grid and Hexode Grid Number 1 to Hexode Plate	0.1	μμf
Hexode Grid Number 3 to All Other Electrodes (R-F Input)	6.6	μμf
Triode Plate to All Other Electrodes Except Triode Grid and Hexode Grid Number 1 (Oscillator Output)	3.2	μμf
Triode Grid and Hexode Grid Number 1 to All Other Electrodes Except Triode Plate (Oscillator Input)	6.0	μμf
Hexode Plate to All Other Electrode (Mixer Output)	3.5	μμf

PHYSICAL DIMENSIONS

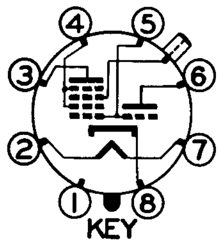


RMA 6-2

TERMINAL CONNECTIONS

Pin 1 - Shield
Pin 2 - Heater
Pin 3 - Hexode Plate
Pin 4 - Hexode Grids Number 2 and Number 4
Pin 5 - Hexode Grid Number 1 and Triode Grid
Pin 6 - Triode Plate
Pin 7 - Heater
Pin 8 - Cathode
Cap - Hexode Grid Number 3

BASING DIAGRAM



RMA 8K
BOTTOM VIEW

MAXIMUM RATINGS

	Design Center	Absolute	
Hexode Plate Voltage	300	330	Volts
Hexode Screen (Grids Number 2 and Number 4)	150	165	Volts
Hexode Screen Supply Voltage	300	330	Volts
Hexode Control-Grid (Grid Number 3) Voltage	Never Positive		
Triode Plate Voltage	125	138	Volts
Hexode Screen Dissipation	0.7	0.77	Watt
Hexode Plate Dissipation	0.75	0.83	Watt
Triode Plate Dissipation	0.75	0.83	Watt
Total Cathode Current	16	18	Milliamperes

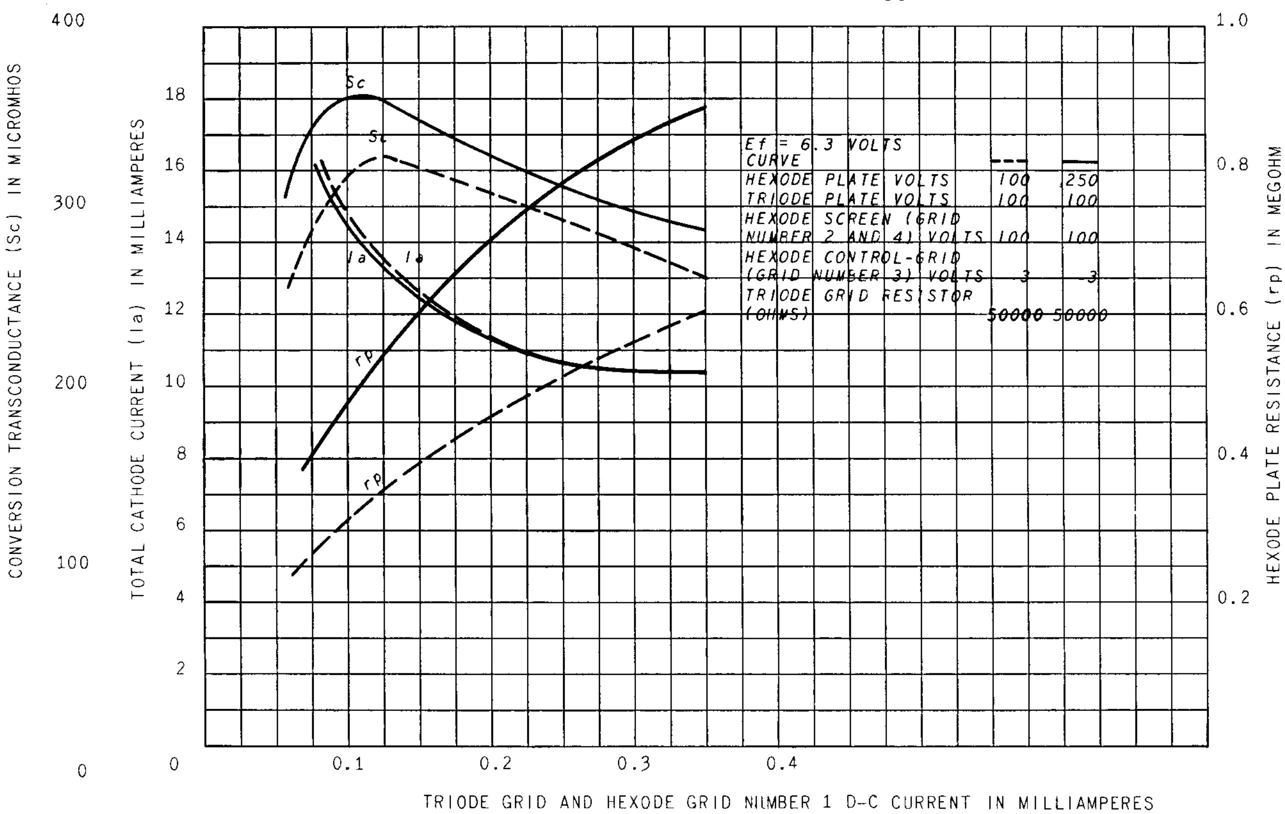
CHARACTERISTICS AND TYPICAL OPERATION

CONVERTER SERVICE

Hexode Plate Voltage	100	250	Volts
Hexode Screen Voltage	100	100	Volts
Hexode Control-Grid Voltage	-3	-3	Volts
Triode Plate Voltage	100	100	Volts
Triode Grid Resistor	50000	50000	Ohms
Hexode Plate Resistance (Approximate)	0.4	0.6	Megohm
Conversion Transconductance	325	350	Micromhos
Conversion Transconductance with Hexode Grid Number 3 Bias -30 Volts (Approximate)	2	2	Micromhos
Hexode Plate Current	2.3	2.5	Milliamperes
Hexode Screen Current	6.2	6.0	Milliamperes
Triode Plate Current	3.8	3.8	Milliamperes
Triode Grid and Hexode Grid Number I Current	0.15	0.15	Milliamperes
Total Cathode Current	12.5	12.5	Milliamperes

With shell connected to cathode.

OPERATION CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

Schenectady 5, N. Y.